國立東華大學
教學計劃表　Syllabus

課程名稱(中文) Course Name in Chinese	下一代網際網路			學年/學期 Academic Year/Semester		112/1
課程名稱(英文) Course Name in English	Next Generation Internets					
科目代碼 Course Code	CSIEM0120	系級 Department & Year	碩士	開課單位 Course-Offering Department		資訊工程學系
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)		3.0/3.0		
授課教師 Instructor	/陳旻秀					
先修課程 Prerequisite						

課程描述　Course Description

The goals of the course are to let you understand
1. Architecture of wireless mobile network
2. Future of wireless mobile network
3. Research issue

課程目標　Course Objectives

探討無線網際網路之現在與未來的架構與通訊方式，課程中也將討論現在的研究議題。
The goal of the course is to let you understand the current and future architecture and the communication technologies of wireless mobile network. The research issues will also be discussed in the courses.

	系專業能力 Basic Learning Outcomes	課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives
A	統合資工知識技術之能力Ability to integrate knowledge and technologies of computer science and information engineering.	○
B	設計技術理論驗證實驗之能力Ability to design and conduct science experiments and to validate hypotheses.	●
C	資訊軟硬體設計開發之能力Ability to design and develop computer software and hardware.	●
D	團隊專案開發之能力Ability to design and develop team projects.	●
E	批判性思考與創新研發之能力。Ability of analytical thinking, creative research planning, and innovative development.	●

圖示說明Illustration ：● 高度相關 Highly correlated ○中度相關 Moderately correlated

授 課 進 度 表 Teaching Schedule & Content

週次Week	內容 Subject/Topics	備註Remarks
1	Introduction	
2	WiMAX and LTE	
3	WiMAX and LTE	
4	WiMAX and LTE	
5	5G	

6	5G	
7	5G	
8	Next-generation Wireless Internet and IoT	
9	Next-generation Wireless Internet and IoT and Final Report Proposal	
10	MANET and VANET routing	
11	MANET and VANET routing	
12	MANET and VANET routing	
13	MANET and VANET routing	
14	IP Mobility Management	
15	IP Mobility Management	
16	IP Mobility Management	
17	IP Mobility Management and Final Report	
18	期末考試週 Final Exam	

教 學 策 略　Teaching Strategies

☑ 課堂講授 Lecture　　　　☐ 分組討論Group Discussion　　☐ 參觀實習 Field Trip
☐ 其他Miscellaneous:

教 學 創 新 自 評 Teaching Self-Evaluation

創新教學(Innovative Teaching)

☐ 問題導向學習(PBL)　　　☐ 團體合作學習(TBL)　　　☐ 解決導向學習(SBL)

☐ 翻轉教室 Flipped Classroom　　☐ 磨課師 Moocs

社會責任(Social Responsibility)

☐ 在地實踐Community Practice　　☐ 產學合作 Industy-Academia Cooperation

跨域合作(Transdisciplinary Projects)

☐ 跨界教學Transdisciplinary Teaching　　☐ 跨院系教學Inter-collegiate Teaching

☐ 業師合授 Courses Co-taught with Industry Practitioners

其它 other:
_____

學期成績計算及多元評量方式 Grading & Assessments									
配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	10%								
期中考成績 Midterm Exam	0%								
期末考成績 Final Exam	0%								
作業成績 Homework and/or Assignments									
其他 Miscellaneous (Paper Presentation and Report)	90%								

評量方式補充說明
Grading & Assessments Supplemental instructions

Final Report Proposa: 30%
Final Report Presentation:60%

教科書與參考書目（書名、作者、書局、代理商、說明）
Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

Text Book: None
Reference:
Dave Wisely, Philip Eardley and Louise Burness, IP for 3G, Networking Technologies for Mobile Communications, John Wiley & Sons, 2002.
Lawrence Harte, Richard Levine and Roman Kikta, 3G Wireless Demystified, Mc Graw Hill, 2002.
Y-Bing Lin and Imrich Chlamtac, Wireless and Mobile Network Architectures, Wiley Computer Publishing, 2001.
Harri Holma and Antti Toskala, WCDMA for UMTS HSPA Evolution and LTE 5th Edition, John Wiley & Sons, 2010.
Releated Papers

課程教材網址(含線上教學資訊,教師個人網址請列位於本校內之網址)
Teaching Aids & Teacher's Website(Including online teaching information.
Personal website can be listed here.）

其他補充說明 (Supplemental instructions)